

TITLE OF THE INVENTION

Method for Forming a Semiconductor Device

This application is a Div of 09/222,776 12/30/1998 PAT 6,660,575 which is a Div of 08/300,938 09/06/1994 PAT 5,939,839 which is a Cont of 07/956,860

BACKGROUND OF THE INVENTION

10/05/1992 ABN.

Field of the Invention

The present invention relates to a partial doping technology with an impurity, which is necessary for a preparing process of such semiconductor device as MOS (Metal-Oxide-Semiconductor) type or CMOS (Complementary Metal-Oxide-Semiconductor) type semiconductor device. In particular, the present invention provides a doping technology, which is capable of a selective method to dope a different region with a different impurity, using a simple and convenient process, and also which is capable of an efficient doping in a low temperature process.

Description of the Related Art

It is indispensable to arrange a process for partially controlling of a resistance rate, by adding an impurity which selectively gives one conductivity type to a part of semiconductor, in case where such semiconductor device as MOSFET (Metal-Oxide-Semiconductor Field-Effect-Transistor) or CMOS type device is prepared.

In a conventional process, an impurity doping has been carried out by the following method. First of all, a shield film is formed on a surface of semiconductor to keep away the intrusion of impurity. Then, the shield film in the region, where a doping will be effected in accordance with a photolithography process, is removed to form a mask. After that, the doping with a needed impurity is executed by a heat-diffusion method or an ion-implantation method.

However, such doping method in the conventional process as mentioned above creates the following problems.